

covered by a rank growth of *Penicillium glaucum*. When asked for the percentage of corrosive sublimate, Dr. Hurty could not give it quantitatively, but furnished the following statement: "Our paste pot holds one pint, and to one-half this quantity one or two fluid drachms of a saturated solution of the poison was added. One drachm of saturated solution added to one-half pint would be about 1 part in 900. The paste always had a strong metallic, corrosive taste, and showed quantitatively that mercuric chloride was present in pronounced amount."

Dr. Farlow was kind enough to examine and confirm the specific nature of the fungus.—JOHN M. COULTER, *Crawfordsville, Ind.*

EDITORIAL.

WE FEAR that the recent proposition to give names to all the minor variations and forms of plants, cultivated or wild, will precipitate us into such a miry slough of nomenclature that we shall never escape. The proposition has a good end in view, and we are in hearty sympathy with the purpose of recording the variations to which plants are subject. The manner in which this is to be carried out, however, is of the utmost importance. If every one who comes across a plant whose leaves do not quite accord with the description of the species is to rush into print in the nearest journal with a description of "*forma lanceolata*" or "*subforma terrestris*," we shall ere long have to cry, "Hold! enough!" The process for the recording of variations must be the same as for revising the species of a genus. If some particular species is suspected of being variable, a large number of specimens, with full data of collection, must be obtained and carefully studied. Only prolonged study and abundant material will enable any respectable opinion to be formed.

In our judgment the time is hardly ripe here for this study. There remains yet too much land to be possessed. In England and western Europe protracted study of the flora has fairly exhausted the species, and some are ready to turn to varieties and forms. Here a vast amount of work is to be done in collecting and *properly* describing species.

PROPERLY DESCRIBING species has been too little heeded by those who have dealt with North American plants, particularly the cryptogams. Mischievous species-making is a greater evil even than the violation of the law of priority, for the intent of the author who uses a too-modern name can usually be ascertained; but he who imperfectly describes a species often puzzles generations.

In three ways the soul of the righteous conservative systematist is vexed. First, by too brief descriptions. One can hardly pick up a number of *Grevillea* without being struck by the absurdly condensed diagno-

ses there given. When Cooke and Masee describe a *Gloeosporium* on cultivated *Pelargoniums* in three lines, who can believe that it is *adequately* characterized? When that species is found on wild *Pelargoniums*, as it well may be, does anyone think that it will be *easily* identified? Will it not rather necessitate a painful expenditure of time, and perhaps even then (should the type specimens be lost) have to be relegated to the limbo of "species non satis notæ"? The case has many parallels.

Again, he suffers from the description of imperfect material. Mitten sees *two stems* of a *Hypnum* in Douglas's collection and describes it as a new species! with the remark that it may be an already described species! Austin receives a sterile *Hypnum* from Colorado, and describes it as a new species, comparing it with four others in widely separated sections of the genus! Kindberg finds a moss in Macoun's collections, and though he is unable to determine to which of two very unlike genera it belongs, describes it as a new species! Examples might be multiplied.

Again, he is exasperated by description by comparison. For example, Kindberg recently describes a *Bryum*, of which he had neither inflorescence nor fruit, in five or six lines, and by comparing it with a well-known species, to which he imagines it allied. Now no finite intelligence can determine the affinity of a *Bryum* by leaves alone; and when over half of the points of comparison are within the known range of variation of the older species, we must conclude that the description is of little use except to legalize a name. Such names are only incumbrances, not helps. His alleged description is too brief, purely comparative, and based on entirely insufficient material. It is a type of all that is bad in its line. Let us hope that the species makers will cease

Giving diagnoses instead of descriptions;

Comparing a new species with an old, except as a supplement to a full description; and

Naming material which is only fit to be shelved till it is completed by further discovery.

CURRENT LITERATURE.

The New Manual.¹

For some years previous to his death, Professor Gray had in contemplation a revision of his popular text-books, the *Lessons*, *Manual* and *Field, Forest and Garden Botany*, all of which were out of date, and, the

¹ *Manual of the botany of the Northern United States, including the district east of the Mississippi and north of North Carolina and Tennessee.* By Asa Gray, late Fisher Professor of natural history in Harvard University. Sixth edition, revised and extended westward to the 100th meridian, by Sereno Watson, curator of the Gray Herbarium, Harvard University, and John M. Coulter, Professor of Botany in Wabash College; assisted by specialists in certain groups. Ivison, Blakeman & Co., New York and Chicago. 1890. Octavo, pp. 760, with 25 plates illustrating the sedges, grasses, ferns, etc.